

REMARKS

This response is offered in reply to the office action of January 12, 2006. A petition and fee for a one (1) month time extension are enclosed.

Applicants acknowledge and appreciate the allowance of claims 6, 8, 9, 12, 15, 19, 21, and 24 in paragraph 4 of the office action.

Applicants note that the office action failed to deal with claim 26, which was referred to in the Advisory Action mailed November 8, 2005, and which is believed to be allowable also.

In paragraph 3 of the office action, claims 1-3, 7, 10, 11, 13, 14, 22, and 23 are rejected under 35 USC 103(a) in view of the cited Bertels US Patent 3,202,793 taken with the Wang US Patent 6,373,021.

This rejection is believed to be incorrect. In particular, the cited '793 patent does not disclose the features of independent claims 1, 10, and 22. Instead, Figure 1 of the '793 patent merely discloses welding a rolled section of steel angle bar 9 by fillet welds 13 to partially zinc coated steel strip 10, which is welded by fillets 12 to tube 8. Figures 3 and 4 of the cited '793 patent show a steel plate 16 welded to a steel strip which has the same thickness as the steel plate 16 and which is welded to an aluminum plate 21.

The '793 patent does not disclose or suggest spot welding a metal sheet to a major side of a bridging patch having an edge welded to a metal tube. The examiner acknowledges the deficiencies of the '793 patent on page 3, lines 1-11 of the office action.

The examiner cites the Wang '021 patent as showing spot welding of a metal sheet to a major side of a bridging patch. However, this is believed to be in error.

For example, the '021 patent is discussed on page 1 of Applicants' specification and shows a metal sheet 12 directly spot welded to a tube 10 at protrusions 28a-28d. That is, the '021 patent does not show a bridging patch having an edge welded to a metal tube and does not show a metal sheet spot welded to a major side of the bridging patch.

Contrary to the examiner's assertion, the '021 patent does not suggest to spot weld a metal sheet to a major side of a bridging patch since the patent shows the metal sheet 12 spot welded directly to the tube 10 in a manner contrary to Applicants' claims.

Thus, the '021 patent is not believed to make up for the deficiencies of the '793 patent.

Independent claims 1, 10, and 22 thus are believed to distinguish patentably over the cited patents.

Further, the '793 patent and the '021 patent taken alone or together do not disclose or suggest welding a metal bridging patch to a metal tube wherein a welding arc is established between an edge of the bridging patch and the tube and spot welding a metal sheet to a major side of the bridging patch as recited in amended dependent claim 3 and in amended independent claim 22. Drawn arc welding is not disclosed or suggested in the patents for welding a bridging patch to a metal tube in fabrication of a sheet-to-tube structure.

Still further, the '793 patent and the '021 patent taken alone or together do not disclose or suggest the features of dependent claims 7, 13, 14, and 23.

Reconsideration of the rejection of claims 1-3, 7, 10, 11, 13 and 22-24 and allowance of these claims is requested.

The Commissioner is authorized to charge the fee for claim 26 to my deposit account No. 20-1124 in the event the fee needs to be paid.

USSN 10/662,841

Allowance of the pending claims is requested.

Respectfully submitted,


Edward J. Timmer Reg. No. 27402

Enclosures: Postal Card

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service under 37 CFR 1.8 as first class mail in an envelope addressed to: Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on May 11, 2006.


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